



**Maine Department of Environmental Protection
Biological Monitoring Program
Aquatic Life Classification Attainment Report**

Station Information

Station Number: S-340	DEP Drainage: Androscoggin
Waterbody: Bird Brook - Station 340	HUC8: 01040002
Town: Norway	HUC8 Name: Lower Androscoggin
Directions: ABOVE RT.117 CROSSING	Latitude: 44 12 43.42 N
	Longitude: 70 32 15.23 W
	Stream Order: 2

Sample Information

Log Number: 1750	Type of Sample: ROCK BAG	Date Deployed: 7/25/2008
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/22/2008

Classification Attainment

Statutory Class: B	Final Determination: B	Date: 4/6/2009
Model Result with P>.6: B	Reason for Determination: Model	
Date Last Calculated: 4/6/2009	Comments:	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.54	Class A, B, or C	1.00
Class B	0.42	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.99	Class A	0.21
Class C or Non-Attainment	0.01	Class B or C or Non-Attainment	0.79

Model Variables

01 Total Mean Abundance	325.67	18 Relative Abundance Ephemeroptera	0.14
02 Generic Richness	55.00	19 EPT Generic Richness	14.00
03 Plecoptera Mean Abundance	1.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.71
04 Ephemeroptera Mean Abundance	46.00	23 Relative Generic Richness- Plecoptera	0.05
05 Shannon-Wiener Generic Diversity	3.79	25 Sum of Abundances: <i>Cheumatopsyche</i> <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	64.17
06 Hilsenhoff Biotic Index	4.54	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	19.00
07 Relative Abundance - Chironomidae	0.29	28 EP Generic Richness/14	0.57
08 Relative Generic Richness Diptera	0.47	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	77.48		
11 <i>Cheumatopsyche</i> Abundance	44.52		
12 EPT Generic Richness/ Diptera Generic Richness	0.54		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	0.67		
16 Tanypodinae Mean Abundance (Family Functional Group)	1.43		
17 Chironomini Abundance (Family Functional Group)	13.94		

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	23.79
2	<i>Cheumatopsyche</i>	13.67
3	<i>Rheotanytarsus</i>	13.28
4	<i>Simulium</i>	8.19
5	<i>Chimarra</i>	6.65



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Waterbody: Bird Brook - Station 340

Date Retrieved: 8/22/2008

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 20.9 deg C
Dissolved Oxygen: 4.33 mg/l
Specific Conductance: 54 uS/cm
Velocity: 95 cm/s
pH: 5.93
Wetted Width: 6 m
Bankfull Width: 6 m
Depth: 85 cm

Waterbody Information - Retrieval

Temperature: 16.4 deg C
Dissolved Oxygen: 5.1 mg/l
Specific Conductance: 81 uS/cm
Velocity: 25 cm/s
pH: 6.28
Wetted Width: 6 m
Bankfull Width: 6 m
Depth: 48 cm

Water Chemistry - Retrieval

Summary of Habitat Characteristics

Landuse Name

Upland Hardwood
Urban

Canopy Cover

Canopy Dense

Terrain

Rolling Terrain

Stressor

Urban Runoff Stressor

Location

Below Urban NPS
Main Stem

Substrate

Boulder	20 %
Detritus	10 %
Gravel	25 %
Rubble/Cobble	30 %
Sand	15 %

Landcover Summary - 2004 Data

Total Area (ac)	4701	High Int. Dev. %	1.7	Water %	0.0	Non-vegetated %	0.1
Total Land (ac)	4699	Med Int. Dev. %	1.5	Wetland %	8.7	Tilled Agriculture %	1.3
		Low Int. Dev. %	3.0	Upland Woody %	77.8	Human Altered %	13.6
		Development %	6.2	Natural %	86.4	Impervious %	4.7

Sample Comments

7/25/08: VERY HIGH WATER

8/22/08: WATER LEVELS NEAR NORMAL; SPC/PH METER DID NOT CALIBRATE FOR SPC (BUT DID FOR PH)



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Aquatic Life Taxonomic Inventory Report

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Waterbody: Bird Brook - Station 340

Town: Norway

Log Number: 1750

Subsample Factor: X1

Replicates: 3

Calculated: 4/6/2009

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Lumbriculus</i>	08020101002		0.67		CG		0.2
<i>Lumbriculus variegatus</i>	08020101002001	0.67			--	0.2	
Enchytraeidae	08020201	0.33	0.33		--	0.1	0.1
<i>Nais</i>	08020202009		0.33		CG		0.1
<i>Nais behningi</i>	08020202009003	0.33			--	0.1	
<i>Caecidotea</i>	09010101001	0.67	1.00	8	SH	0.2	0.3
<i>Caecidotea racovitzai racovitzai</i>	09010101001002	0.33			--	0.1	
<i>Hyaella</i>	09010203006		0.67	8	CG		0.2
<i>Hyaella azteca</i>	09010203006011	0.67			--	0.2	
<i>Orconectes</i>	09010301008	0.33	0.33		CG	0.1	0.1
<i>Paracapnia</i>	09020203018	0.33	0.33	1	SH	0.1	0.1
<i>Acroneuria</i>	09020209042		0.33	0	PR		0.1
<i>Acroneuria abnormis</i>	09020209042121	0.33		0	PR	0.1	
<i>Attaneuria</i>	09020209043		0.33	1	--		0.1
<i>Attaneuria ruralis</i>	09020209043128	0.33			--	0.1	
<i>Boyeria</i>	09020301004		2.33	2	PR		0.7
<i>Boyeria vinosa</i>	09020301004012	2.33			--	0.7	
<i>Argia</i>	09020309048	0.33	0.33	7	PR	0.1	0.1
<i>Pseudocloeon</i>	09020401006		4.67	4	SC		1.4
<i>Pseudocloeon frondale</i>	09020401006029	4.67			--	1.4	
<i>Acerpenna</i>	09020401007	0.33	2.00	5	CG	0.1	0.6
<i>Acerpenna macdunnoughi</i>	09020401007001	1.33			--	0.4	
<i>Acerpenna pygmaea</i>	09020401007011	0.33			--	0.1	
<i>Maccaffertium</i>	09020402015	11.33	18.67	4	SC	3.5	5.7
<i>Maccaffertium modestum</i>	09020402015051	7.33			--	2.3	
Leptophlebiidae	09020406	13.67	13.67		--	4.2	4.2
<i>Paraleptophlebia</i>	09020406026	7.00	7.00	1	CG	2.1	2.1
Philopotamidae	09020601	0.33	0.33		--	0.1	0.1
<i>Chimarra</i>	09020601003	21.67	21.67	2	CF	6.7	6.7
<i>Lype</i>	09020602004		1.33	2	SC		0.4
<i>Lype diversa</i>	09020602004005	1.33			--	0.4	
Hydropsychidae	09020604	2.33			--	0.7	
<i>Cheumatopsyche</i>	09020604015	43.67	44.52	5	CF	13.4	13.7
<i>Hydropsyche</i>	09020604016	8.67	77.48	4	CF	2.7	23.8
<i>Hydropsyche depravata complex</i>	09020604016041	67.33			CF	20.7	
<i>Triaenodes</i>	09020618077	0.33	0.33	6	SH	0.1	0.1
<i>Bezzia/palpomyia</i>	09021010043	0.33	0.33	6	PR	0.1	0.1
Chironomidae	09021011	6.33			--	1.9	



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		Actual	Adjusted			Actual	Adjusted
<i>Ablabesmyia</i>	09021011001		0.36	8	PR		0.1
<i>Ablabesmyia mallochi</i>	09021011001004	0.33			--	0.1	
<i>Conchapelopia</i>	09021011004	0.33	0.36	6	PR	0.1	0.1
<i>Natarsia</i>	09021011011		0.36	8	PR		0.1
<i>Natarsia baltimorea</i>	09021011011026	0.33			--	0.1	
<i>Zavrelimyia</i>	09021011022	0.33	0.36	8	PR	0.1	0.1
<i>Corynoneura</i>	09021011036	1.00	1.07	7	CG	0.3	0.3
<i>Cricotopus</i>	09021011037		0.36	7	SH		0.1
<i>Cricotopus bicinctus</i>	09021011037057	0.33			--	0.1	
<i>Nanocladius</i>	09021011049	0.33	0.36	3	CG	0.1	0.1
<i>Orthocladius</i>	09021011050		0.36	6	CG		0.1
<i>Orthocladius annectens</i>	09021011050092	0.33			--	0.1	
<i>Parakiefferiella</i>	09021011052	0.33	0.36		CG	0.1	0.1
<i>Parametriocnemus</i>	09021011053	2.67	2.86	5	CG	0.8	0.9
<i>Rheocricotopus</i>	09021011057	0.33	0.71	6	CG	0.1	0.2
<i>Rheocricotopus robacki</i>	09021011057105	0.33			--	0.1	
<i>Thienemanniella</i>	09021011062	0.33	0.36	6	CG	0.1	0.1
<i>Micropsectra</i>	09021011070	0.33	0.36	7	CG	0.1	0.1
<i>Paratanytarsus</i>	09021011071	5.67	6.07	6	--	1.7	1.9
<i>Rheotanytarsus</i>	09021011072	40.33	43.24	6	CF	12.4	13.3
<i>Stempellinella</i>	09021011074		0.36	2	--		0.1
<i>Stempellinella sp. a epler</i>	09021011074002	0.33			--	0.1	
<i>Tanytarsus</i>	09021011076	17.67	18.94	6	CF	5.4	5.8
<i>Dicrotendipes</i>	09021011085	0.33	0.36	8	CG	0.1	0.1
<i>Microtendipes</i>	09021011094		1.07	6	CF		0.3
<i>Microtendipes pedellus group</i>	09021011094166	0.33			--	0.1	
<i>Microtendipes rydalensis group</i>	09021011094168	0.67			--	0.2	
<i>Polypedilum</i>	09021011102		11.43	6	SH		3.5
<i>Polypedilum aviceps</i>	09021011102181	0.67			--	0.2	
<i>Polypedilum flavum</i>	09021011102182	7.33			--	2.3	
<i>Polypedilum illinoense group</i>	09021011102185	2.00			--	0.6	
<i>Polypedilum scalaenum group</i>	09021011102189	0.67			--	0.2	
<i>Stenochironomus</i>	09021011105	0.67	0.71	5	CG	0.2	0.2
<i>Tribelos</i>	09021011107		0.36	5	CG		0.1
<i>Tribelos jucundum</i>	09021011107198	0.33			--	0.1	
<i>Helopelopia</i>	09021011114	3.33	3.57	6	PR	1.0	1.1
<i>Simulium</i>	09021012047	0.67	26.67	4	CF	0.2	8.2
<i>Simulium aureum</i>	09021012047052	1.33			--	0.4	



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<i>Simulium venustum/verecundum</i> <i>complex</i>	09021012047072	24.67			CF	7.6	
<i>Simulium vittatum complex</i>	09021012047073				CF		
Empididae	09021016			6	--		
<i>Hemerodromia</i>	09021016057	1.00	1.00	3	PR	0.3	0.3
<i>Dubiraphia</i>	09021113064	0.33	0.33	6	--	0.1	0.1
<i>Optioservus</i>	09021113067		0.67	3	SC		0.2
<i>Optioservus fastiditus</i>	09021113067044	0.67			--	0.2	
<i>Stenelmis</i>	09021113070	1.00	1.00	5	SC	0.3	0.3
<i>Campeloma</i>	10010102004		0.67		SC		0.2
<i>Campeloma decisum</i>	10010102004009	0.67			--	0.2	
<i>Ferrissia</i>	10010204035		0.67		SC		0.2
<i>Ferrissia rivularis</i>	10010204035066	0.67			--	0.2	
Sphaeriidae	10020201	0.33			CF	0.1	
<i>Pisidium</i>	10020201002		0.44		CF		0.1
<i>Pisidium walkeri</i>	10020201002017	0.33			CF	0.1	
<i>Sphaerium</i>	10020201003		0.89		CF		0.3
<i>Sphaerium striatinum</i>	10020201003024	0.67			--	0.2	